

Claims:

1.-27. (Canceled)

28. (Original) A method for preventing cell death from hypoxia-reoxygenation, comprising:

contacting a cell undergoing hypoxia reoxygenation with an effective amount of a composition of matter selected from the group consisting of epoxyeicosatrienoic acids (EETs), epoxyeicosatrienoic acid metabolic products, epoxyeicosatrienoic acid and dihydroxyeicosatrienoic acid analogs, and combinations thereof,

wherein the composition prevents cell death in the cell undergoing hypoxia-reoxygenation.

29.-32. (Canceled)

33. (Currently Amended) The method of claim 28, wherein contacting a cell comprises administration of EETs, epoxyeicosatrienoic acid metabolic products, ~~epoxyeicosatrienoic acid, dihydroxyeicosatrienoic acid analogs~~ epoxyeicosatrienoic acid analogs and dihydroxyeicosatrienoic acid analogs, ~~and~~ or combinations thereof to a subject.

34. (Currently Amended) The method of claim 33, wherein the ~~wherein the~~ administration comprises producing EETs from a cytochrome P450 epoxygenase.

35. (Previously presented) The method of claim 34, wherein the EET is [11,12]-EET, [14,15]-EET, or combinations thereof, and wherein the epoxyeicosatrienoic acid metabolic product is [11,12]-DHET.

36. (Previously presented) The method of claim 34, wherein the cytochrome P450 epoxygenase is selected from the group consisting of CYP1A, CYP2B, CYP2C, CYP2E, and CYP2J enzymes.

37. (Previously presented) The method of claim 36, wherein the CYP2J enzyme is a mammalian homologue of CYP2J2.

38. (Previously presented) The method of claim 37, wherein the mammalian homologue is human CYP2J2.

39. (Previously presented) The method of claim 37, wherein the mammalian homologue is rat CYP2J3 or mouse CYP2J5.

40. (Currently Amended) The method of claim 28 wherein the EET is [11,12]-EET or [14,15]-EET, and wherein the epoxyeicosatrienoic acid metabolic product ~~products~~ is [11,12]-DHET.